

What is claimed is:

1. A transmission apparatus, comprising:

15 a first optical signal receiver which receives a first optical signal transmitted from a first transmission path;

a second optical signal receiver which receives a second optical signal transmitted from a second transmission path;

a first optical signal transmitter which transmits a third optical signal onto a third transmission path;

20 a second optical signal transmitter which transmits a fourth optical signal onto a fourth transmission path;

an interface for distribution system; and

25 a cross connect switch which exchanges electric signals from said first and second optical signal receivers and said interface for distribution system, and which sends out them into said first or second optical signal transmitter, or into said interface for distribution system, wherein,

a decoder for error correcting code of said first or second optical signal receiver and an encoder for error correcting code of said first or second optical signal transmitter are independently controllable for each.